

# MANAGING A MOLD CRISIS

IAQ Tools for Schools National Symposium

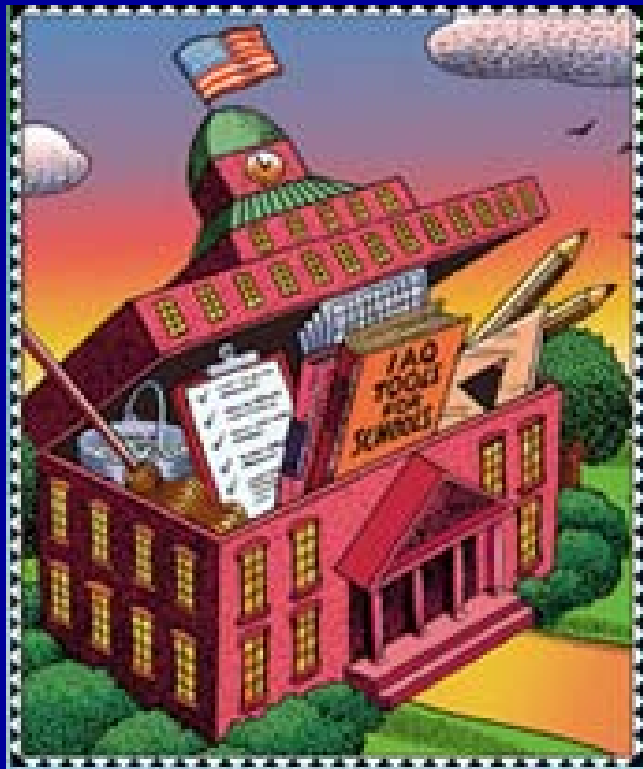
October 28, 2003



**John F. McCarthy, Sc.D., C.I.H.**  
**Environmental Health & Engineering, Inc.**  
Newton, MA • Miami, FL  
[www.eheinc.com](http://www.eheinc.com)

# EPA *Tools for Schools*

## IAQ Tools for Schools



- Provides basis
  - Prevention
  - Detection
  - Resolution

# Key Issues

- ***Mold Happens!*** Plan for it
- Crises rapidly escalate
- Credible communications are key
- Crisis management is a team effort

# Crisis

- **Any situation that runs the risk of:**
  - Escalating in intensity
  - Media, public or government scrutiny
  - Interfering with the normal operations
  - Jeopardizing the positive public image
  - Detrimentially impacting use of or diverting resources

# Managing a Mold Crisis

- Acknowledge
- Communicate
- Investigate
- Educate
- Take action
- Communicate



# Realities of a Crisis

- **Severe time constraints**
  - Real-time decision-making
- **Multiple priorities**
- **Uncertainty exists**
- **Impact is large**
- **Concerned with personal credibility**
- **Little (if any) prior experience**



USAToday

# Financial Impact of Mold Crises

<b>Assessment</b>	<b>\$10k - \$500k</b>
<b>Town Labor</b>	<b>\$10k - \$100k</b>
<b>Remediation</b>	<b>\$20k - \$500k</b>
<b>Repairs</b>	<b>\$20k - \$5,000k</b>
<b>Relocation</b>	<b>\$10k - \$1,000k</b>

# Seymour, Connecticut

**New Haven Register**

## Seymour Middle School



### Seymour school cleanup gets expensive

Joanne M. Pelton , Naugatuck Valley Bureau Chief

08/28/2003

**SEYMOUR — Cleaning up mold at Seymour Middle School could cost as much as \$125,000.**

First Selectman Scott Barton said Wednesday he wants a full investigation into how mold found its way into a \$32 million school that opened two years ago.

Barton said the school's heating and air conditioning system should have some types of controls to prevent mold from forming and asked that an investigation be conducted. He said that if the problem is found with the design of the school, the town should not have to pay for the cleanup, which was conducted last week.

Superintendent of Schools Thomas Petruncy said the district is now doing an analysis of what caused the mold to grow. He said that at this point, "I'm not going to point any fingers," at what caused the mold and who should be responsible for cleanup costs.

Petruncy said the report on the mold and what caused it is due out next week. He said the mold was removed and school opened smoothly Tuesday for the 600 students in grades 6-8.

"It's upsetting that this happened. We don't have money to pay for the cleanup cost in our budget and we really can't afford it," he said.

Petruncy said approximately 50 school districts statewide, including Ansonia and Oxford, were faced with mold problems this year.

"In more than 30 years as an educator I haven't seen anything like this," he said.

ENTAL  
VEERING





# Broward County, Florida



**Indian Trace Elementary**



**Riverside Elementary**

## **The Miami Herald**

### **Lawsuits seek damages for mold in schools**

**By Herald staff**

The Broward school district was slammed Thursday with 18 lawsuits stemming from ongoing problems with mold infestation at leaky public schools.

The voluminous, separate lawsuits allege that the district hid knowledge of the mold problems from the public and was negligent in its attempts to correct the problem.

The 54-page complaints quote liberally from an earlier grand jury report that ripped the district for its glacial mold and mildew cleanup efforts. Smelly wallboard and tainted air conditioning systems have plagued a handful of leaky Broward schools for years.

The district has spent millions of dollars repairing roofs and ripping out wallboard, but problems have persisted.

Targeted in the lawsuits is Indian Trace Elementary in Weston, where 25 student areas -- including the cafeteria -- were closed when school opened in August because of poor air quality due to mold. Some of the areas have since reopened, but the district

# Eugene, Oregon

## Kelly Middle School



### news

September 16, 2003

## Schools To Sue Over Moldy Gym

By Pat McGillivray

Eugene - The Eugene School District is ready to file a lawsuit nine months after water damage and toxic mold were discovered in the Kelly Middle School gym in North Eugene. But even legal action will not mean the gym will be repaired any sooner.



It remains off limits at Kelly. The floor has been ripped out, the walls are gutted and on rainy days water continues to flow inside. It has been a frustrating time for Principal Tim Rochholz, juggling classes and assemblies since last year while others try to determine who is financially responsible for fixing the problem. "Students need a place to be able to participate in healthy activities and gather together," explains Rochholz.

There were months of negotiations to determine the liability for the water damage in the gym, but they did not resolve anything. So the school district has decided to sue.

Bill Hirsch is the Eugene School District's Facilities Manager. He says the district has a good working relationship with Robertson-Sherwood Architects and Dorman Construction who built the gym eight years ago. But this case is about liability, so the district has sent a letter demanding the companies pay for the cost of repairs and

ENVIRONMENTAL  
HEALTH & ENGINEERING



# St. Charles, IL

## St. Charles East High School



## Daily Herald

NEWS

### **School leaders unsure when St. Charles East will be safe**

Erica Meltzer and Alice Fabbre Daily Herald Staff Writer

04/03/2001

Chicago Daily Herald-F3-1

St. Charles school administrators promised parents and students Monday night that they will do everything they can to make sure St. Charles East High School is safe, but answers to some of the most urgent questions were not forthcoming.

District officials closed East for a week Saturday after AAA Environmental found evidence of dangerous molds in several classrooms in the Dunham wing of the building. The school was closed to allow AAA to work uninterrupted and test for molds in other parts of the school.

Principal Nina Narozny, Superintendent Francis Kostel and Pamela Smith, president of AAA, addressed a crowd of nearly 800 parents and students in a packed auditorium at the Norris Cultural Arts Center.

Narozny was able to answer with certainty one question on nearly everyone's mind.

ENTAL  
EERING





# What Has Changed?

[Email this story](#)

## **Black mold found in Kimball Elementary School**

District closes classroom, assures parents building's air quality safe

By HANNAH NEWTON

Times Herald

**KIMBALL TWP.** -- The air in Kimball Elementary School is safe, but the building had black mold, according to a study requested by the Port Huron Area School District and released Monday.

Small areas of potentially irritating black mold were found on a ceiling tile and wall in a classroom used for the Young 4s program.

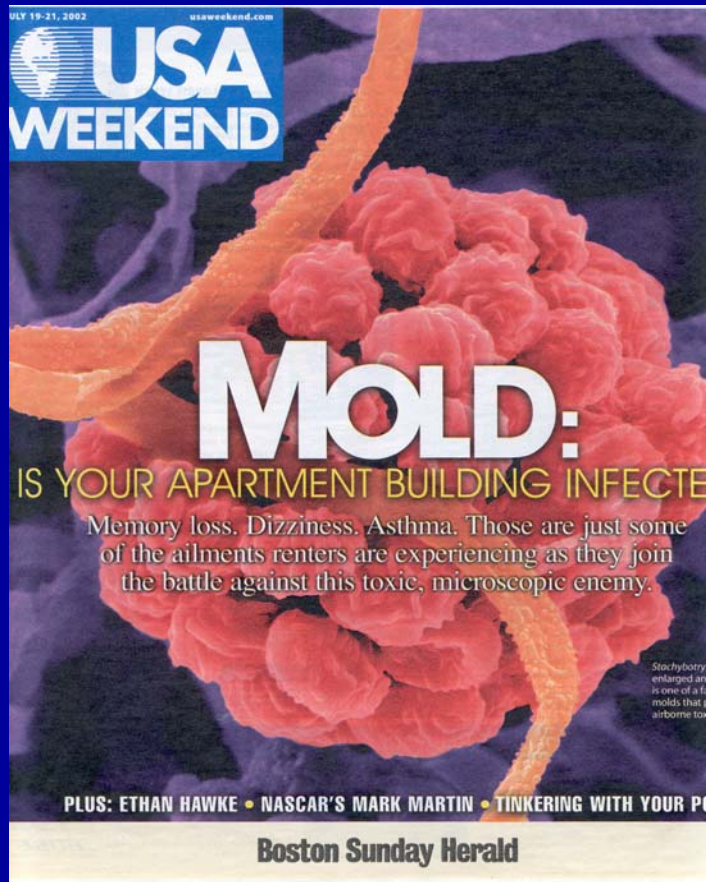
The ceiling tile and drywall since have been removed. The classroom has been closed since the beginning of spring break earlier this month.



By MELISSA WAINZYSKO, Times Herald



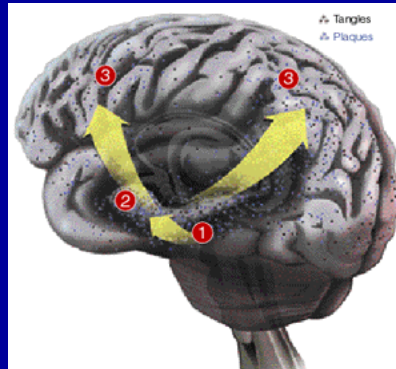
# Media Interest



# Internet-based Misinformation

[www.MoldInspector.com](http://www.MoldInspector.com)

**Alzeheimer's  
Disease & Mold**



[www.moldlawyer.com](http://www.moldlawyer.com)

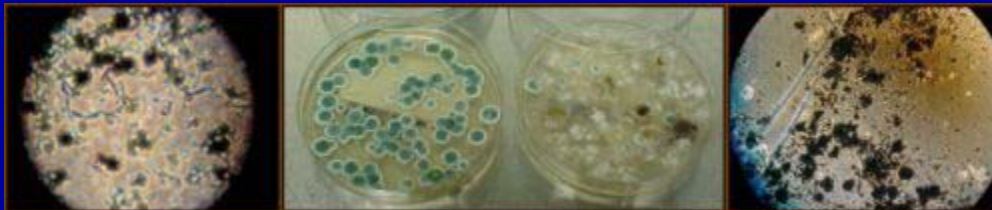
**Mold Antibody  
Blood Test Kit**

**\$249**

includes shipping

**Toxic Mold Resource Center**

**Do you have Toxic Mold like these  
in your home?**



# More Mold Misinformation

The screenshot shows a Microsoft Internet Explorer window with the address bar displaying [http://www.moldnews.net/louisiana\\_school\\_mold.htm](http://www.moldnews.net/louisiana_school_mold.htm). The website has a purple header with the title "Toxic Black Mold News Stories" and the subtitle "(The Ultimate Toxic Black Mold News Story Provider)".

**New**

We now accept credit card payments for our mold training seminar and mold school tuition fee [including our new Home or [Distance Mold Training](#) learning program] For details visit: [Credit Card Payments](#)

For info on our next Mold Training Seminar please visit: [Mold Training Schedule](#)

**Do-It-Yourself Mold Books To Solve Your Mold Problems**

Solve your property mold problems in the most effective, safe, and affordable way by following the advice and tips contained in these three new [Sept., 2003] mold instructional books. [Click for details:](#)

To find a **Certified Mold Inspector** in Louisiana please visit [Certified Mold Inspector](#)

To find a **Certified Mold Remediator** in Louisiana please visit [Certified Mold Remediator](#) or email [moldinspector@yahoo.com](mailto:moldinspector@yahoo.com)

For information on **Louisiana mold remediation** and **Louisiana mold inspection** services please visit [Certified Mold Inspectors and Contractors](#)

For information on mold remediation, mold inspection, mold investigation, mold cleaning, mold abatement, mold removal, and mold testing products visit [Mold Products](#)

---

**She's baaaaack...Betty Cox returns with law degree to fight toxic mold in schools**

Emily Peters / The Town Talk, Alexandria, Louisiana  
Posted on July 30, 2003

A school secretary is suing the Rapides Parish School Board with the help of former school superintendent Betty Cox.

Cox, now a Baton Rouge lawyer, is representing Peggy Bergeron in her lawsuit that claims toxic mold in her office at the Rapides Motivational Center made her ill.

Cox served as Rapides Parish school superintendent from 1994 to 1998 before she left the

# Factual Web Sites

The Facts About Mold - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail News RSS Feeds

Address <http://www.ahia.org/GovernmentAffairs-PR/html/oomold.htm> Go Links



**AIHA**  
Your Essential Connection

advancing  
occupational & environmental  
health & safety  
globally

marketplace search help become a member! contact us!

About AIHA

Members Only

Employment Services

Publications/Advertising

Meetings & Education

Laboratory Services

Committees/SIGS

Local Sections

ANSI Committees

Government Affairs/PR

The Academy

Consultants/Consumers

The Foundation

Related Sites

## The Facts About Mold

### Introduction



Mold is in the news. People are talking about its potential health and economic impact. But what are the real risks and issues?

The available science is incomplete and sometimes controversial. Although there are several guidance documents available, there is no accepted national standard. Validated methods to measure contamination are still in their infancy, and even when measurement techniques are available, there are no clear benchmarks or standard values to compare the results against. Similar scientific uncertainties exist in the medical diagnosis of some mold-related health effects.

The scientific complexities alone would be a huge challenge, but the truth is that other difficulties dwarf them. The intense public and media attention on this topic often creates emotionally charged circumstances that make scientific judgment and reasoned dialogue difficult. In some instances, building owners tend to ignore or dismiss potentially serious problems. In other instances, building occupants or public officials can react with excessive alarm to perceived potential threats, complicating the scientific component of the evaluation and making risk communication very difficult.

14 Hierarchical Menu Trees Created

Start Microsoft Word My Computer Microsoft Powe... The Facts Ab... Internet

1:13 PM

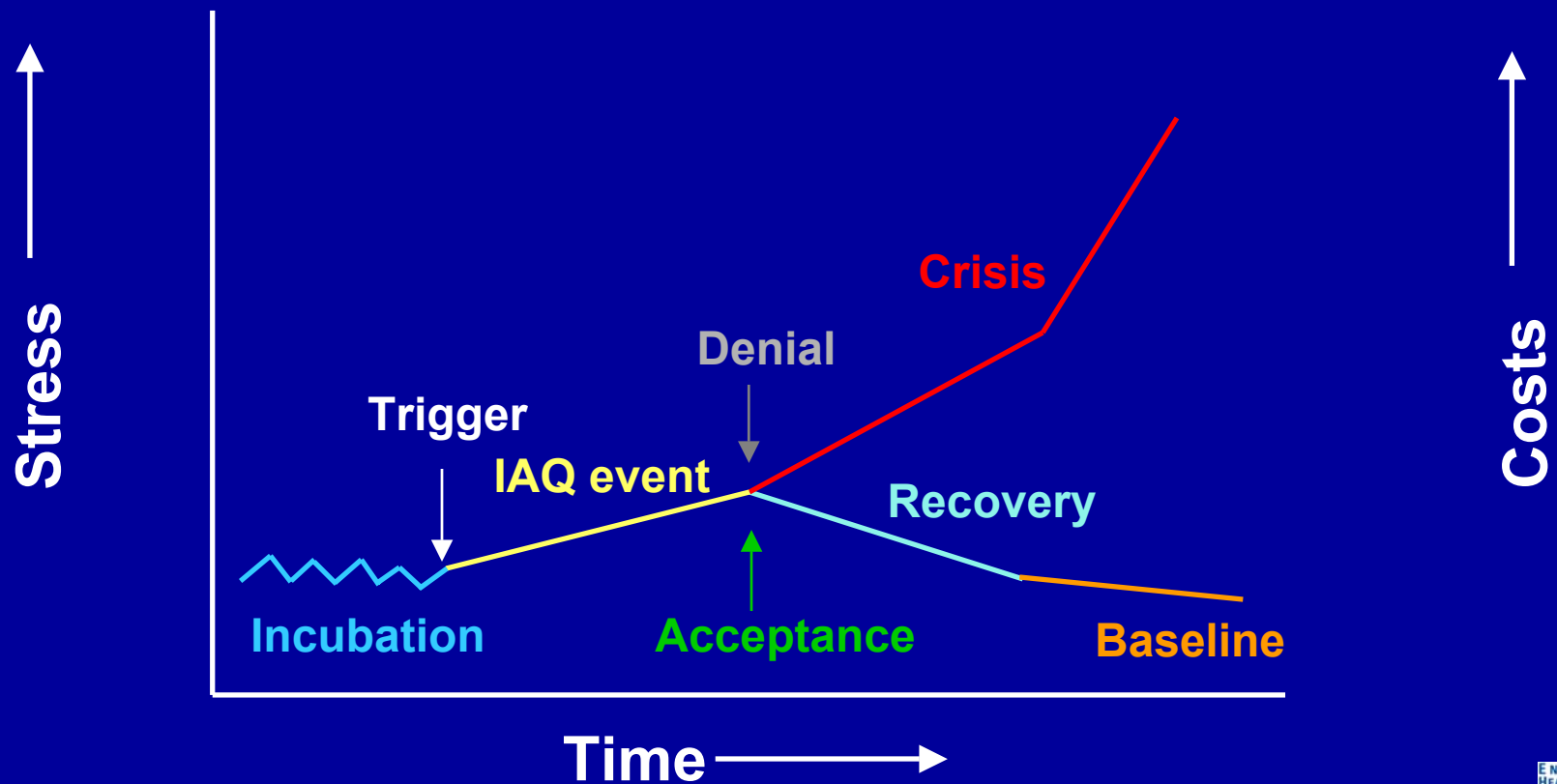


# Imagine a meeting . . .

- Upset parents
- Agitated children
- Concerned school officials
- Nervous speakers
- Print and television media



# Managed vs. Unmanaged IAQ Event



# Evolution of a Crisis

## Incubation

- “Every year students and teachers get sick when they return to school”
- “Funny” smells



# Evolution of a Crisis

## Trigger

- **Parent talks to pediatrician**
  - Does “tests”
  - Reports exposure to “low-level toxins”
  - Places student on home study
  - Feels responsibility to alert others



# Evolution of a Crisis

## Response / Denial

- Assistant Superintendent “takes charge”
  - Asserts no basis for problem in school
- Pressure forces School Dept. to hire a “IAQ firm” (6 weeks)
  - “IAQ testing” done immediately
  - Report of “Toxic Mold” (10 weeks)

# Evolution of a Crisis

## Response / Denial

- Report entitled “*Investigation of Mold Contamination at XXX Elementary School*”
  - “Likely cause of higher than average absenteeism”
  - Boilerplate description of mold health effects
- After repeated requests, parents and teachers get information 14 weeks after first complaints

# Evolution of a Crisis

## Crisis

- Superintendent has Principal organize an “IAQ Committee”
- Public meeting – multiple challenges
  - “School is poisoning our children”
  - “There is a cover-up”
  - “There has always been a problem”
  - “We hold you accountable”
- Hysteria outpaces school action

# Conditions Found





# Challenge: Representative Sampling

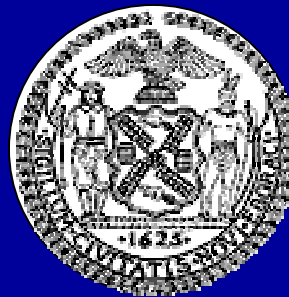


# School Closed



# Dealing With Mold

- Professional guidance does NOT recommend testing as a first step.
- **Guidelines**
  - EPA
  - NYC Dept of Health
  - ACGIH



# Environmental Sampling for Mold

- There are no standards
- Speciation is not necessary to design remediation
- Results are unlikely to aid in health assessment
- Improper interpretation can occur
- No good comparison populations
- Temporal, spatial (+ background) variability



# Primary Investigations

- **Visual inspections**
  - Mold growth
  - Water damage
- **Moisture measurements**
- **Intrusive inspection**
- **Estimate extent**



# Useful Technologies

- Borescopes and robots
- Moisture meters
- Infrared thermometry
- Tracking relative humidity
- Airflow tracers



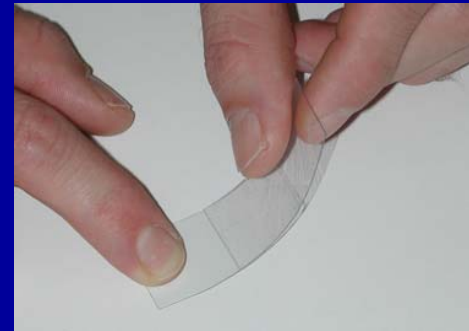
# Specialized Testing

- **May be warranted**
  - Locate 'hidden' growth
  - Justify remediation expenses
  - Liability-related issues



# Secondary Investigations

- Surface samples
- Bulk samples
- Air samples





# Guidelines

- **Thresholds of acceptability not defined**
- **Non-medical guidelines for building diagnostics**
  - Bulk sample guidelines
  - Comparison with outdoors
  - Rank order analysis
  - “Indicator” species present

# Air Testing Must:

- Have clearly defined goals
- Be focused on solving the issue
- Be achievable
- Provide useful information

# Unmanaged vs. Managed Crises

	Unmanaged	Managed
Complaints	Non-specific	Analyzed
Investigation	Unfocused	Targeted
Communication	Reactive	Proactive
Follow-up	Slow	Prompt

# Avoiding a Crisis

## Incubation

- Acknowledgement of complaints
- Consistent response to evaluation
- Meet with staff
- Communication with other stakeholders
- Existing IAQ Committee initiates outreach/oversight



# Conditions Found



# Avoiding a Crisis

## Trigger

- Teacher/Parent/Physician concerns
- Student placed on home study
- IAQ Committee brings in knowledgeable, credible third parties



# Avoiding a Crisis

## Response / Acknowledgement

- Outside firm does detailed assessment (focused by IAQ Committee)
  - Identifies areas and extent of moisture/mold
  - Report entitled “*Assessment of Moisture Damage at XXX Elementary School*”
  - Provides credible information for third party review (Allergist)
- Written communications

# Avoiding a Crisis

## Recovery

- **Public meetings to address outstanding concerns**
  - Clarifies facts
  - Communicates consistent message
  - Restates basis for actions
  - Confirmed by trusted third party
  - Reiterates accountability
- **Remediation work is scheduled and performed**

# Lessons Learned

# Communication

- **Effective communication, not PR, is the objective**
- **Take initiative**
  - If you don't frame the issues, someone else will

# Effective Crisis Messages

- **Simplify**
- **Acknowledge current concerns**
- **Be consistent**
- **Communicate early and often**

# Communication Principles

- **Establish communication goals**
- **Plan carefully**
  - Evaluate effectiveness
- **Understand audiences**
  - Listen to their concerns
- **Tailor your message to them**
- **Trust and credibility of the communicator is critical**



# Who Is a Credible Third Party?

Health Professionals

“Informed” Citizens

Friends and Family

Professors/Educators

Media

Administrators/Regulators

Experts

# CREDIBILITY v. KNOWLEDGE

Health Professionals	3
“Informed” Citizens	6
Friends and Family	5
Professors/Educators	4
Media	7
Administrators/Regulators	2
Experts	1

# Credibility Building Aids

- **Clear explanations/frank discussion**
- **Outside investigation**
- **Establish advisory committee**
- **Independent review - third party credibility**
- **Accept accountability**

# Risk Communication in Crisis

- Advance planning
- Coordination among “experts”
- Single focus for information transfer

# The Plan

**Introducing order into chaos**

# The Crisis Management Team

- Team leader
- Principal
- Superintendent
- Medical professional



# **Designate Responsible Personnel**

- **Town or City Administration**
- **Department of Public Health**
- **Safety Officer/Risk Manager**
- **Director of Public Works**
- **School Department Administration**

# Getting the Right Help

- Federal or State
- Medical
- Engineering
- Exposure Assessment
- Risk Communication



# Team Leader

- Strong organizational skills
- Ability to motivate and work effectively with others
- Assertive, not aggressive
- Strong problem-solving capabilities
- Commitment
- Good communicator

# Prevention Program

- **Pre-plan**
- **Raise awareness of other responsible individuals**
- **Educate staff and faculty**
- **Develop criteria for selection of a remediation contractor**
- **Obtain references**
  - Remediation contractors
  - Industrial Hygienists
  - Allergists

# Budget Process

- Educate decision makers about cost maintain or defer (with interest)
- Establish contingency fund
- Prioritize (subjective ranking vs. scientific studies)
- Comprehensive program review

# Will It Ever Be Over?

- Rebuilding trust through accountability
- Demonstrating effectiveness
- Education
- Rebuilding morale
- Implementing proactive programs





# SUMMARY

- **A responsive team is essential**
- **Planning/anticipation is critical**
- **Crises often escalate because of confused/mismanaged communications**
- **Prompt release of credible information is critical**
- **Accountability does not equal liability**

# MANAGING A MOLD CRISIS

IAQ Tools for Schools National Symposium

October 28, 2003



**John F. McCarthy, Sc.D., C.I.H.**  
**Environmental Health & Engineering, Inc.**  
Newton, MA • Miami, FL  
[www.eheinc.com](http://www.eheinc.com)